

Amendment/Response

Reply to Office Action of August 22, 2006

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims:

1. (currently amended) A net-aware telephone switch providing IP phone service for a user of a communication terminal, the net-aware telephone switch comprising:

a two-line switch connecting with the communication terminal for switching outgoing calls between IP phone mode and PSTN phone mode;

a CPU for sending and receiving IP phone mode calls to and from the net-aware telephone switch;

storage for storing programs and data required for sending and receiving the IP phone mode calls;

the storage further including a parameters setting module, operated by the CPU to direct the user to set parameters for establishing a connection with an Internet service provider and a connection with an Internet telephone provider, and to direct the user to set an indicator indicating IP phone mode; an Internet connecting module, operated by the CPU to establish the connection with the Internet service provider; an IP phone initiating module, operated by the CPU to establish the connection with the Internet telephone provider; and an IP phone conversation module, operated by the CPU to enable the user to talk with a called end in IP phone mode;

an Internet connector for connecting the net-aware telephone switch with the Internet;
and

a bus for connecting together the two-line switch, the CPU, the storage, and the Internet connector; and

a smart card reader-writer for storing the parameters into a smart card inserted into the smart card reader-writer.

2. (original) The net-aware telephone switch of claim 1, further comprising an A/D converter with an analog side connected with the two-line switch and a digital side connected with the bus, for converting telephone signals between analog form suited for the communication terminal and digital form suited for the net-aware telephone switch.

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3. (original) The net-aware telephone switch of claim 1, wherein the Internet connector includes an Ethernet card.
4. (original) The net-aware telephone switch of claim 1, wherein the Internet connector includes a broadband modem.
5. (original) The net-aware telephone switch of claim 1, wherein the Internet connector includes a DSL modem.
6. (original) The net-aware telephone switch of claim 1, wherein the Internet connector includes a wireless modem.
7. (original) The net-aware telephone switch of claim 1, further comprising a display for prompting the user for information.
8. (original) The net-aware telephone switch of claim 1, further comprising a wireless port connected with the bus for receiving data input by the user through an input device.
9. (original) The net-aware telephone switch of claim 8, wherein the wireless port includes an infrared transceiver.
10. (original) The net-aware telephone switch of claim 8, wherein the wireless port includes a Bluetooth transceiver.
11. (cancelled)
12. (currently amended) The net-aware telephone switch of claim ~~11~~, wherein a digital certificate is stored in the storage and sent to the Internet telephone provider for authentication.
13. (currently amended) The net-aware telephone switch of claim ~~11~~, wherein the parameters include an address of the Internet service provider and an address of the Internet telephone provider.
14. (original) The net-aware telephone switch of claim 13, wherein the parameters further include a first password associated with the Internet service provider and a second password associated with the Internet telephone provider.
15. (cancelled)

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16. (currently amended) The net-aware telephone switch of claim 145, wherein a digital certificate is stored in the smart card and sent to the Internet telephone provider for authentication.

17. (currently amended) A method for providing IP phone service for a user of a communication terminal, comprising the steps of:

establishing a connection with an Internet service provider and a connection with an Internet telephone provider;

receiving an outgoing call signal input by the user through the communication terminal;

determining whether the outgoing call signal includes a symbol input by the user information indicating that the outgoing call signal is an IP phone mode call;

if the outgoing call signal includes the symbol information indicating that the outgoing call signal is an IP phone mode call, providing IP phone service for the user through the Internet telephone provider; and

if the outgoing call signal does not include the symbol information indicating that the outgoing call signal is an IP phone mode call, routing the outgoing call signal to a public service telephone network.

18. (original) The method of claim 17, wherein the step of providing IP phone service for the user comprises the steps of:

converting an analog voice signal associated with the outgoing call signal to a digital voice signal; and

converting the digital voice signal into TCP/IP packets suitable for Internet transfer.

19. (original) The method of claim 17, further comprising the step of reading parameters for connecting with the Internet telephone provider from a smart card.

20. (new) The method of claim 19, wherein security information of the user is stored on the smart card.